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THE

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A popular monthly review and record for the Pacific Coast.

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TRIFOLIUM TRIDENTATUM Lindl.

Genus MELILOTUS Tournefort.

MELILOTUS ALBA Lam.

MELILOTUS PARVIFLORA Desf.

Genus AMORPHA Linnaeus.

AMORPHA CALIFORNICA Nutt.

Genus MEDICAGO Linnaeus.

MEDICAGO DENTICULATA Willd.

Bur clover or toothed medick, @ of the Mediterranean region, which has become naturalized in most warm countries, valuable forage, but more prominent in our gardens as a weed of rapid growth. da 5 j s

MEDICAGO LUPULINA Linn.

Black medick, nonesuch, black grass, hop clover, @ or biennial, widely grown for pasture. Or 60 d

MEDICAGO SATIVA Linn.

Alfalfa is probably the best known & most extensively grown forage plant in America, & is known by many names such as lucern, purple medick, Spanish trefoil, Brazilian clover.

Genus PSORALEA Linnaeus.

PSORALEA CALIFORNICA S. Watson.

PSORALEA MACROSTACHYA D. C.

PSORALEA ORBICULARIS Lindl.

Genus GLYCYRRHIZA Linnaeus.

GLYCYRRHIZA LEPIDOTA Pursh.

Genus DALEA Linnaeus.

DALEA CALIFORNICA S. Watson.

DALEA EMORYI A. Gray.

DALEA MOLLIS Benth.

DALEA ORCUTTII S. Watson.

"Perennial, with numerous short slender herbaceous subprocumbent or ascending stems (3-4′ long) from a woody branching rootstock, appressed silky-puberulent: leaves 4-6″ long, the folded oblong-obovate leaflets (4-6 pairs) ½″ long, glabrous above: peduncles about equalling the leaves: spikes short (½′ long), somewhat crowded, the fl. reflexed or spreading: calyx short-villous, turbinate, the lanceolate acuminate teeth equalling or exceeding the tube; the p. orbicular banner and the wings scarcely exserted, the broad twice-longer keel p. on the inner margin."—S. Watson, Proc. Am. Acad., xx. 359 (Feb. 21, 1885).

DALEA PARRYI Torr. & Gray.

DALEA SCHOTTII Torr.

DALEA SPINOSA A. Gray.

Genus ASTRAGALUS Tournefort.

A LIMITUS Sheldon Minn bot studies b 9 126

"♀, robust, bushy but not woody, minutely pubescent with sparse, ascending hairs; stems 3-5 dm high, erect, thick, striate: leaves 10-12 cm in length, numerous, rachis channelled; leaflets 1-3½ cm in length, in 5-9 pairs, orbicular, obovate or oblong, rarely obcordate, obtuse or retuse; stipules triangular-ovate, foliaceous, reflexed; peduncles thick, striate, exceeding in length the leaves, loosely subspicate; fls 10-15 mm in length, spreading or reflexed; calyx cylindrical, appressed pubescent with nigrescent hairs, the teeth unequal, much shorter than the tube; corolla magenta colored when fresh, becoming violet when dried; legume 2-2½ cm in length, chartaceous, horizontal or ascending, ovate, with a long, incurved tip, finely short-pubescent, minutely reticulate-veined, unilocular, many seeded. Near Indian wells & Carriso creek e Or."

A ALBATUS Sheldon Minn bot studies b 9 128

"@ or perhaps biennial, whitened throughout with a fine, dense pubescence; stems 9-20 cm high, erect, simple, thick, 1-4from the y'ish root, finely striate; leaves 4-6 cm in length, the rachis striate; leaflets 8-15 mm in length, in 4 or 5 pairs, oblong, obtuse; stipules triangular acuminate, free, erect; peduncles 3-5 cm in length, terete, loosely 4-6 fl'ed: fls 5-6 mm in length, erect-spreading, becoming deflexed; calyx broadly campanulate, the abruptly pointed triangular teeth ⅓-½ the length of the tube; corolla whitish or ochroleucous; legume 11-12 mm in length, membranaceus-inflated, ovate-oblong, acuminate pointed, the ventral suture straight, the dorsal curved, softly white-pubescent, unilocular, with neither suture introflexed, 2-6 seeded. Or e."

ASTRAGALUS ORCUTTIANUS S. Wats.

"Stems numerous, slender, decumbent, 1° long, sparingly strigose-pubescent: leaflets 8-10 pairs, rounded, 1-3″ broad: peduncles shorter than the leaves, 2-3′ long in fr.; raceme loose, few-fl.: calyx campanulate, 2″ long, the teeth mostly equalling the tube: pod linear-falcate, ascending, coriaceous, attenuate to a stipe shorter than the calyx, with a dorsal groove and acute ventral suture, 2-celled by the intrusion of the dorsal suture, 9″ long. Allied to A. Arizonicus, rather peculiar in habit, the small round leaflets upon an elongated rhachis exceeding the raceme. In Cantillas Canon ("Tantillas" of Palmer), Lower California, by C. R. Orcutt, August, 1883."—S. Watson, Proc. Am. Acad., xx. 361 (Feb. 21, 1885).

ASTRAGALUS COULTERI Benth.

ASTRAGALUS CROTALARIAE A. Gray.

ASTRAGALUS DISPERMUS A. Gray.

ASTRAGALUS LEUCOPSIS T. & G.

ASTRAGALUS OOCARPUS A. Gray.

ASTRAGALUS PARISHII A. Gray.

ASTRAGALUS SONORAE A. Gray.

ASTRAGALUS STENOPHYLLUS T.-G.

ASTRAGALUS TRICARINATUS A. Gry.

ASTRAGALUS VASEYI S. Watson.

A COCCINEUS Br Zoe 2 72

"℘ cæspitose densely white-hirsute petioles nearly as long as the leaves; leaflets, 12-15 oval to obovate, obtuse, 6-10 mm long; stipules triangular-lanceolate: peduncles considerably surpassing the leaves; fls numerous shortly pedicellate, clustered near the top; calyx cylindrical slender, the linear nearly equal teeth ⅓ the length of the tube: corolla spreading, bright red, 35-40 mm long, double the length of the calyx; banner lanceolate: the oblong keel equalling it in length, very shallow & little curved not hiding the stamens, which are free for nearly ¼ their length; keel & banner barely emarginate: pods an inch long resembling A. Purshii, but not mature & exact shape therefore not determinable." Or j e mj

A purshii ? coccineus Py W 7 10

A grandiflorus Wat Am ac pr 18 370 non Pajl.

A pyenostachyus G da 5

A nuttallianus DC Or d j

A circumdatus Ge

A gambellianus Sheldon Or 63 j d

A didymocarpus da 5 &c non L.-A

A antiselli G da 5

A tener G da 5

Genus OLNEYA A. Gray.

OLNEYA TESOTA A. Gray.

Iron wood, palo hierro, una de gato; a beautiful tree, characteristic of the desert regions; the wood is of great density, rich, dark color, taking an extremely fine polish, when dry an axe makes slight impression. j e z

Genus VICIA Tournefort.

VICIA EXIGUA Nutt.

Vicia americana Muhl da 5

Vicia linearis Ge da 5

Vicia sativa L da 5

VICIA THURBERI Watson Am ac pr 25 129

"@, about 1° high, the young leaves, etc., pubescent, becoming glabrous: leaflets 4-12, narrowly linear, acute, 3-7 lines long; stipules small, subulate-lanceolate or linear, not at all sagittate, entire: peduncles short (3-6" long), bearing 1 or rarely 2 small w or purplish fls: calyx nearly glabrous, the teeth rather short-acuminate: pods glabrous, sessile, oblong, obliquely acute at each end, about 9" long by 2½ -3 broad, 5-7 ovuled. From southern Utah & Colo to z & n"—Watson.

VICIA HASSEI S. Watson.

"Often tall: leaflets 3-6 pairs, linear to narrowly oblong, acute or obtuse and apiculate, or more frequently truncate and emarginate or toothed at the apex; stipules semi-sagittate with the rather broad lower lobe usually 2-4-toothed: peduncles 6-15" long, 1-fl. or sometimes remotely 2-fl.: pod more attenuate at each end and short-stipitate, 5-9-ovuled, 9-16" long. On open grassy hills about Los Angeles, California, growing with V. exigua; Dr. H. E. Hasse. Also collected at Santa Cruz by Dr. C. L. Anderson, at Benicia by Dr. Bigelow (V. exigua var (?) Californiea Torr. in Pae. Railroad Rep. 4.76), and on Guadelupe Island by Dr. Palmer."—S. Watson. Proc. Am. Acad., xxv. 129-130 (Sept. 25, 1890).

Genus ACACIA Willd.

ACACIA GREGGII A. Gray.

Acacia Farnesiana Willd.—Dr. Harvard classes this among the medicinal plants of Texas, probably because "a decoetion of the pod contains tannin."

Genus CASSIA Linnaeus.

CASSIA COVESII A. Gray.

Genus LATHYRUS Linnaeus.

LATHYRUS WATSONI White he 75

"Lathyrus californicus. Stem stout, tall & more or less winged: stipules semi-sagittate, dilated & often coarsely toothed, or the upper narrower; leaflets 3-7 pairs, ovate oblong to linear-lanceolate, ½-2' long or more, acute or acuminate softly pubescent on both sides, as also the rachis: peduncles stout, nearly equaling the leaves, many fl'ed: calyx teeth short (the lower 2" long or less); petals 7-9" long, apparently y'ish or pinkish: pod linear, 2' long by 3" broad, attenuate at base to a stipe."—A at Am ac pr 20 363, he 73, (r 78 d

L venosus Muhl of former lists.

LATHYRUS SPLENDENS Kellogg.

Pride of California, distinguished for its profusion of large brilliant rose red to crimson fls borne in clusters of 10 or more the 2d year from seed—the most magnificent of the native climbing plants of West America. Or d, 76 j Also of promise as a forage plant; half-hardy.

Genus PARKINSONIA Linnaeus.

PARKINSONIA TORREYANA S. Wat.

Parkinsonia Aculeata L.—Valued by the Mexican Indians as a febrifuge and suborific, and also as a remedy in epilepsy (fide Schott). See Proc. U. S. Nat. Mus. VIII. 501.

Genus PROSOPIS Linnaeus.

PROSOPIS JULIFLORA D. C.

The mesquite is the most abundant desert tree, rarely over 20 feet high,

often forming extensive groves miles in extent. The mesa back of San Diego, near the normal school, is its western limit, where it is only a small shrub, but it extends east to Texas and south to the Argentine republic.

PROSOPIS PUBESCENS Benth.

The screw-bean is a characteristic desert tree, slender, 15-20 feet high; not rare from Riverside county southward into Lower California, abundant in Palm valley, not far from San Diego.

ROSACEAE.

Suborder AMYGDALEÆ

Genus PRUNUS Tournefort.

PRUNUS DEMISSA Walp.

PRUNUS ILICIFOLIA Walp. "Islay;" evergreen, or holly-leaved cherry; attractive for the beauty of its shining dark green foliage: fruit dull red, of a delicate flavor, with a kernel "almost equal in flavor to the almond." A desirable ornamental shrub and useful as a hedge plant.

The holly-leaf cherry is a beautiful dark evergreen shrub, yielding a pleasant edible fruit. Useful for hedges or ornamental planting.

PRUNUS FASCICULATA A. Gray.

PRUNUS FREMONTI S. Watson.

Suborder POMEÆ

Genus AMELANCHIER Medicus.

A. ALNIFOLIA Nuttali

Shrub 3–8 feet high, glabrous throughout or often more or less woolly-pubescent; leaves broadly ovate or rounded, occasionally oblong-ovate, obtuse at both ends or acute, often somewhar cordate at base, serrate usually only toward the summit½–1½ inches long: racemes short: calyx usually tomentose within: peta's 3–12 lines long, narrowly oblong: fr mostly ¼–⅓ inch in diameter.

Cv 4 97, British Columbia–j

Genus HETEROMELES J. Roemer.

HETEROMELES ARBUTIFOLIA Rœm.

The California toyon, or tollon, is a handsome evergreen shrub found throughout the state, better known as the Christmas berry, or California holly. The scarlet berries are borne in the greatest profusion, and, ripening at Christmas time, are extensively used in decorating. The berries are said to have formed an important article of food with the Indians, and school children frequently eat them; but, so far as known, they are not otherwise utilized. They are not unpleasant to the palate, having a healthy, bitterish bytaste. The toyon is more useful as a hedge plant, doubtless, than for its fruit. It ranks high as an ornament l evergreen, the dark foliage forming a beautiful setting for the panicles of white flowers. It appears in many horticultural catalogues under the name of Photinia arbutifolia.

Suborder ROSACEÆ

Genus RUBUS Linnaeus.

RUBUS NUTKANUS. Mocino. Salmonberry, the West American Mayberry; a singularly beautiful fruit, varying in color from a clear golden yellow to an orange red; delicious when served with sugar and cream.

RUBUS URSINUS C. & S.

R vitifolius C-S Linnæa 2 10, cv 4 92

Genus ALCHEMILLA Tournefort.

ALCHEMILLA ARVENSIS Scop.

Genus SPIRAEA Linnaeus.

S discolor Pursh da 5

Holodiscus discolor cv 4 91

Genus ADENOSTOMA Hook & Arn.

ADENOSTOMA FASCICULATUM H.-G.

ADENTOSTOMA SPARSIFOLIUM Torr.

Genus ROSA Tournefort.

ROSA CALIFORNICA C. & S.

ROSA MINUTIFOLIA Engelm.

Genus IVESIA Torrey & Gray.

IVESIA BAILEYI S. Watson.

Genus FRAGARIA Tournefort.

FRAGARIA CALIFORNICA C. & S.

Genus CERCOCARPUS H. B. K.

CERCOCARPUS PARVIFOLIUS Nutt.

Genus PURSHIA De Candolle.

PURSHIA TRIDENTATA DC

Kunzia tridentata Spreng Anleit ed 2, 2 869.
Tigarea tridentata Pursh fl 1 333 (1814).

Genus CHAMAEBATIA Bentham.

CHAMAEBATIA FOLIOLOSA Benth.

Genus CANOTIA Torrey.

CANOTIA HOLACANTHA Torr.

Genus POTENTILLA Linnaeus.

POTENTILLA CALIFORNICA Greene.

POTENTILLA PUBERULA Greene.
POTENTILLA SAXOSA Lemmon.
POTENTILLA CLEVELANDI Greene.

"Size and habit of [puberula], but more slender, more densely puberulent and not at all viscid: leaflets smaller, cuneate- to round-obovate, crenate-toothed: calyx half as large: filaments only lanceolate-dilated; anthers less than ½" long & nearly as broad: petals apparently pale y: pistils rather few: akenes hardly ½" long, broadly ovate with a slightly incurved tip, not compressed. Laguna mountains, back of San Diego, Jl 1885, D Cleveland: also collected in n j by Or 905 "—Ge Pitt 1:102 (8 N 1887).

SAXIFRAGACEAE.

Genus SAXIFRAGA Linnaeus.

SAXIFRAGA PARRYI Torr.
SAXIFRAGA REFLEXA Hook.

Genus TELLIMA R. Brown.

TELLIMA CYMBALARIA Walp.

Genus HEUCHERA Linnaeus.

HEUCHERA RUBESCENS Torr.

Genus RIBES Linnaeus.

RIBES MENZIESII Pursh.
RIBES SANGUINEUM Pursh.
RIBES SPECIOSUM Pursh.
RIBES VIBURNIFOLIUM A. Gray.
RIBES VISCOSISSIMUM Pursh.

CRASSULACEAE.

Genus TILLAEA Linnaeus.

TILLÆA ANGUSTIFOLIA Nuttall.

'Branching from the base, rooting; leaves linear-lanceolate, acute, connate, 1½" long; fls axillary, solitary, on short pedicels; sepals 4, ovate, not half the length of the oblong white petals; carpels broad, obtuse, 8-seeded; style none, stigma minute; seeds nearly horizontal, linear-oblong, minutely tuberculate in longitudinal rows. Stems 1-2' high.'

TILLAEA MINIMA Miers.

Genus SEDUM Linnaeus.

SEDUM SPATHULIFOLIUM Hook.
SEDUM VARIEGATUM S. Watson.

ROCHEA FALCATA DC. See Crassula falcata.

COTYLEDON ATTENUATA Watson.

A dwarfish species resembling edulis, with yellowish flowers, discovered in 1886, and introduced by C. R. Orcutt; useful for borders.

C. Californica—the true name of this pretty sp. proves to be Sempervivum calcareum.

C. EDULIS Brewer (Sedum edule).

Ladies' Finger Tips so called from the round, slender leaves, said to be eaten for salad by the Indians; much larger than attenuata.

C. LANCEOLATA Bentham & Hooker.

Does well under good treatment, producing a spike of red or yellow flowers. The lanceolate flat leaves sometimes of a dull crimson color, but commonly green; 6 inches across. da 6

C. LAXA Bentham & Hook r

Leaves curiously twisted; flowers red or yellowish—much like lanceolata otherwise.

C. LINEARIS Greene Lower California.

Another plant first introduced into cultivation by C. R. Orcutt, and similar to lanceolata.

C. ORBICULATA Linnæus. South Africa

An old time garden favorite, attaining a height of several feet and tropical in aspect; produces large pendulous orange colored flowers of rare beauty and permanence; of rapid growth

COTYLEDON ORCUTTII Greene.

Near attenuata, but different inflorescence, flowers tinged with pink; excellent border.

C. PULVERULENTA Baker.

A plant of great beauty when at its best, with broad leaves covered with a thick white powder, elegant in form. da 6

C. SECUNDA Baker. Mexico.

Very beautiful symmetrical plant—used extensively in parks, rockeries, borders, &c

COTYLEDON VISCIDA S. Watson.

Handsome apple green foliage and sprays of rose purple flowers; a great novelty.

CRASSULA FALCATA Wendl. A South African plant, grayish in color, producing gorgeous panicles of brilliant red flowers.

LYTHRACEÆ

AMMANIA COCCINEA R.
A. LATIFOLIA L.
LYTHRUM ALBUM HBK.
L. alatum Pursh & v. linearifolium G.
L. californicum Watson.
LYTHRUM HYSSOPIFOLIA L.

ONAGRACEÆ

Epilobium angustifolium . cv 4 102
E californicum Hauss da 6
E holosericeum Trel. da 6 cv 4 102
E coloratum Muhl.
E adenocaulon v occ dentale Trel. da 6
Ludwigia palustris Ell. da 6
Zauschneria californica Presl. da 6, cv 4 103

Genus GODETIA Spach.

GODETIA EPILOBIOIDES S. Watson.
GODETIA TENELLA S. Watson.
G purpurea Wat, da 6.
G quadravulnera Spach. da 6
G bottæ Spach da 6 cv 4 106

Genus BOISDUVALIA Spach.

BOISDUVALIA DENSIFLORA S. Wat.
B. CLEISTOGAMA Cur. da 6
Jussiæa repens L. da 6
Gayophytum diffusum T-G da 6
Clarkia elegans Doug. da 6. cv 4 103
C rhomboidea Dougl. " "
OENOTHERA BIENNIS Linn.
v hirsutissima Ge da 6

OENOTHERA BISTORTA Nutt.
v veitchiana Hook. da 6
OENOTHERA BREVIPES A. Gray.
(E leptocarpa Ge da 6
(E californica Wat da 6
(E virescens Hook. da 6
(E micrantha Horn. da 6
(E strigulosa T-G da 6
(E decorticans Ge da 6
OENOTHERA CARDIOPHYLLA Torr.
OENOTHERA GAURAEFLORA T. & G.
OENOTHERA REFRACTA S. Watson.

LOASACEAE.

Genus PETALONYX A. Gray.

PETALONYX LINEARIS Greene.
PETALONYX THURBERI A. Gray.

Genus MENTZELIA Linnaeus.

MENTZELIA ALBICAULIS Dougl.
MENTZELIA INVOLUCRATA S. Wat.
MENTZELIA LAEVICAULIS T. & G.
MENTZELIA MICRANTHA T. & G.
MENTZELIA TRICUSPIS A. Gray.
M gracilenta T-G da 6
M dispersa Wat cv 4 108. da 6

Genus EUCNIDE Zuccarini.

EUCNIDE CORDATA Kellogg.
EUCNIDE URENS Parry.

CUCURBITACEAE.

Genus CUCURBITA Linnaeus.

CUCURBITA PERENNIS A. Gray.
See Cucurbita fœtidissima.
CUCURBITA PALMATA S. Watson.

Cucurbita Palmata Watson.—The mock orange and wild pomegranate are names frequently applied to this and other species of the genus cucurbita. The root is very bitter, and a strong and quick emetic, acting "without any disagreeable effect on the nerves." In common with the following species this is known to the Mexicans as "Chili Coyote," or "Calabazilla."

Cucurbita Foetidissima, H. B. K.—I do not know that the natives discriminate between these species in favor of either one or the other. "The macerated root is also used as a remedy for piles" (Watson, Bot. Cal., i:239).

C perennis G. da 6, cv 4 109

Micrampelis Macrocarpa Greene.—The chilocothe vine, also belonging to the Cucurbitaceae, possesses similar properties to Cucurbita palmata. The root attains immense size, and is credited with having formed the basis of the once famous "Dr. Walker's Celebrated California Vinegar Bitters."

M macrocarpa Ge ca ac b 1 185 under Echinocystis; Pitt 2 129; cv 4 109.
Micrampelis fabacea Ge da 6
M LEPTOCARPA Ge pitt 2 282 (1892).

"Habit of M fabacea, but more slender, with smaller & more deeply lobed foliage: leaves very thin, rather sparsely & delicately scabrous: fls w, apparently open-campanulate rather than rotate; the staminate about 8-12 in a simple raceme; pistillate ones twice as large (¾′ broad), with oblong prickly ovary ½′ long or more: mature fr rather narrowly oblong, acute, about 5′ long, less than 2′ thick, strongly armed with flattened prickles ½-1′ long: seed-cavities 2, each with perhaps 5 or 6 seeds, but these unknown. h—W G Wright"

Genus MEGARRHIZA Torrey.

M californica Torrey - see Micrampelis fab.
ECHINOCYSTIS FABACEA Naudin.
See Micrampelis fabacea.
ECHINOCYSTIS GUADALUPENSIS Cn.
Micrampelis guadalupensis fide Ge.

DATISCACEAE.

Genus DATISCA Linnaeus.

DATISCA GLOMERATA B. & H.
"The root is a bitter tonic known as Durango root" (Mrs. Bingham).

CACTACEAE.

Many people who have been acquainted only with the prickly pear and the cholla cactus of the plains—perhaps to the detriment of their epidermis, will be surprised to learn that over one thousand valid species exist, to which more than three thousand names have been applied by botanists and horticulturists.

Genus ANHALONIUM Lemaire.

ANHALONIUM ENGELMANNI Lem Cact 42 (1868). Is A. fissuratum Engelmann,

A. FISSURATUM Engelmann.
Living Rock, found in Texas and Mexico. "Upper and exposed part of tubercle triangular in outline, convex, carinate and almost smooth below, convex and variously fissured and thereby verrucose above, sharp and crenate on the edges."—Engelmann.

A. FURFURACEUM—Mammillaria furfuracea Watson—near prismaticum.

A. LEWINII—a form of Williamsii

A. SULCATUM Salm Dyck, of a very distinct aspect, flattened top, small growth.

A. WILLIAMSII—more properly an Echinocactus, 'mescal buttons'—see Lophophora.

Genus ARIOCARPUS Scheidw.

An older name than Anhalonium, recently revived by Schumann and other botanists, but we prefer to retain the name by which they are and have been universally known over 50 yrs.

Genus ASTROPHYTUM Lemaire.

ASTROPHYTUM MYRIOSTIGMA Lem.

'Bishop's hood,' a beautiful thing & odd. m

CACTUS DENSISPINUS Coulter.

Mammillaria densispina, M. fuscata. m

Genus CEREUS Haworth.

CEREUS ALAMOSENSIS Coulter.

?C. Sonoræ Runge; sina borbona; 2-8 ft. high, 2-10 branches from the base with joints 1-4 ft. long, flexuous or decumbent, often forming arches and rooting at the joints and thus widely spreading, often covering 100 feet; ribs about 7, slightly tuberculated, flower red. Mexico.

CEREUS BERLANDIERI Engelm.

A small decumbent species bearing large purple sweet-scented flowers.

CEREUS CAESPITOSUS Engelm. The Lace Cactus, a beautiful little species, found in Texas and Mexico, with large magenta colored flowers, blooming when only 2 inches high, the flowers 2 inches across, and lasting 2 days. The plant is enveloped with fine white spines, and can be "handled without gloves."

CEREUS CHLORANTHUS Engelm.

A form of viridiflorus, with beautiful red and white spines and greenish flowers.

CEREUS COCHAL Orcutt.

CEREUS COLUBRINUS Otto.

Native of Cuba; night blooming; sweet-scented white flowers 6 inches across,

C. compressus (triangularis v.).

CEREUS DASYACANTHUS Engelm.

Texas; densely covered with delicately colored spines & bearing showy orange yellow flowers.

C. EHRENBERGII Pfeiffer. Mexico.

Resembles Berlandieri, but larger & more erect

CEREUS EMORYI Engelmann. This is one of the best-known of California cacti, the slender, thickly-set yellowish spines giving it a peculiarly beautiful appearance. The spines on the young joints are shorter, soft and flexuous; the flowers are yellowish, followed by a small edible fruit.

CEREUS ENGELMANNI Parry. Heads several (sometimes, though rarely, a hundred,) 4 to 12 inches high, cylindric or ovate, with 11 to 13 ribs bearing bunches of about 13 pale radiating spines, and about 4 darker (yellow, brown or black), stout and angular, straight or curved central spines, 1 to 3 inches long. Flowers very numerous, bright magenta, often 4 inches across, followed by delicious fruits, with much the same flavor of a strawberry, red, pulpy, filled with black seeds. Utah, California, Baja California and Arizona.

V. albispinus: ivory-white spines,

V. chrysocentrus: canary yellow spines.

V. variegatus: black & white spines,

CEREUS ENNEACANTHUS Engelm.

CEREUS ERUCA Brandegee.

Chilenola;

CEREUS FENDLERI Engelmann.

Queer irregular cæspitose plants, 3-4 inches in diameter, about 6 inches high, rarely more than 12 heads in a cluster, distinguished by the one usually black central spine which often curves upward, magenta fls., variable.

CEREUS FLAGELLIFORMIS Haworth. The well-known whip-cord or Rat's-tail Cactus, so useful in hanging baskets or for grafting on columnar species; the bright rose-colored flowers are extremely attractive.

CEREUS FOSSULATUS Hort. Mexico.

CEREUS GEMMATUS Zucc. Mexico.

CEREUS GIGANTEUS Engelm.

CEREUS GRANDIFLORUS Haworth. "The night-flowering cereus has gained a fame which entitles it to prominent notice, and plants might well be included in every garden, for its flowering is a source of interest to the least observant persons."—Castle.

CEREUS GREGGII Engelm.

Gregg's night blooming cactus occurs in the arid regions of Southern Arizona, New Mexico, Texas, Chihuahua and Sonora, and is notable for its large tuberous root and slender inconspicuous stems, 1 to 3 or 4 feet high, a half inch in diameter. Flower 6 inches long, 2 inches in diameter, with pale, purple petals, followed by the smooth, oval, acuminate, scarlet fruit, succulent, crowned with the remains of the corolla, and suported by a distinct stipe of a bright crimson.

CEREUS GUMMOSUS Engelm.

The pitahaya agria, or cord-wood cactus, of Lower California, is noted for its large, bright, scarlet fruit, possessing a delicious flavor, pleasantly acid, like a strawberry, the pulp the color of a ripe watermelon, with the small black seeds scattered throughout. The flowers are 4 to 5 inches long, purple, and quite handsome. The stems are 4 to 10 feet high, 3 to 5 inches in diameter, armed with stout angular, blackish spines.

CEREUS HOPPENSTEDTI.

CEREUS MAC DONALDIAE Hook. A handsome slender-stemmed species, of Honduras, Central America, and one of the finest of the night-flowering cacti. Flowers 12 to 14 inches across, with creamy white lanceolate petals, with an outer fringe of narrow yellow sepals; with a fragrance like vanilla.

We no longer consider this distinct from Cer. grandiflorus.

CEREUS MARITIMUS M. E. Jones.

CEREUS MOJAVENSIS Engelm.

Occurs in almost inaccessible mountain canyons in the Mohave desert where its blood-red blossoms have oft enchanted the solitary prospector; the clusters of short heads form a very symmetrical plant like a cushion of green satin filled with needles—a form of polyacanthus

V. Zuniensis from Arizona—a finer form.

CEREUS MULTIPLEX Hort. (§Echinopsis).

Beautiful pink fls.

CEREUS NAPOLEONIS R. Graham.

Near triangularis—probably a form only?

CEREUS NYCTICALUS Link.

Yellowish fls., night-blooming, distinguished from grandiflorus by its 4-angled stems

CEREUS PACIFICUS (Engelmann) Coulter.

Form of polyacanthus, cæspitose, crimson fls. Originally described as a form of phœniceus.

CEREUS PATAGONICUS-ABORIGINUM Engelm.

Erect, about 20 feet high, branching, bearing reddish fls. & curious spiny fruit resembling giant chestnut burs, from which the Indians made combs—hence its name; 'Hecho'.

CEREUS PECTINATUS Engelm.

§Echinocereus. Fragrant magenta fls.

CEREUS PENTALOPHUS De Candolle.

Related to Berlandieri.

CEREUS PERUVIANUS MONSTROSUS Hort.

Grotesque in the extreme.

CEREUS POLYACANTHUS Engelm.

Hardy, crimson fls., of easy growth.

CEREUS PRINGLEI S. Watson.

The Cardon is the giant cactus of Lower California and Sonora, where it forms forests, attaining a height of 20 to 35 feet. The ribs are usually 13, and it differs from the giant cactus of Arizona (Cereus giganteus) in that the spine bearing areolae on the ribs are connected by wooly grooves. The trunk is often 3 to 4 feet in diameter; the older portions of the branches usually quite thornless. The dead wood is used for fuel, but otherwise this mammoth production of the desert seems to be without use.

OLD MAN CACTUS.

CEREUS SENILIS Salm-Dyck.

§Pilocereus. The old man cactus attracts universal attention, receiving its popular & very appropriate name from the long, flexible, ivory white spines, giving the plant a most grotesque appearance, like the top of an old man's head in miniature. In Mexico it attains a height of 20 to 50 ft., 9 or 10 inches in diameter, its fluted character giving it somewhat the appearance of an architectural column When young the stems are succulent, but with age the tissues become filled with 60 to 80 per cent. of oxalate of lime in small sand like grains.

CEREUS SPECIOSISSIMUS DC.

Mexico; bears in profusion large crimson fls often 8 inches across

C. SPLENDENS Hort.

Our plants under this name are indistinguishable from colubrinus, but have not yet fld.

CEREUS STRAMINEUS Engelm.

CEREUS THURBERI Engelm.

The Pitahaya Dulce is an abundant species in Sonora and portions of Lower California, also said to occur in southern Arizona. It grows from 5 to 20 feet high, many stems 6 to 10 inches in diameter from the same base, bearing greenish or reddish white white flowers followed by large luscious fruit, rather too sweet it is said for northern palates. It was named in honor of George Thurber, a widely renowned botanist.

CEREUS PROCUMBENS Engelmann.

Near Berlandieri, spreading prostrate stems with fls. 3 inches across, rose purple.

CEREUS PUGIONIFERUS Lem.

None in stock, Mexico; form of geometrizans.

CEREUS REGELII Hort.

Form of grandiflorus named in honor of Dr. R.

CEREUS RIGIDISSIMUS Engelm.

Echinocereus candicans of catalogs, famous as the Rainbow cactus, considered by Engelmann as a form of pectinatus

CEREUS SARGENTIANUS Orcutt.

§Pilocereus. Form of Schottii. 18 inch cuttings with beautiful flesh-colored hair.

CEREUS SCHOTTII Engelm.

§Pilocereus Sonora.

V. AUSTRALIS Brandegee, new.

CEREUS TRIANGULARIS Miller. The Strawberry Pear bears most beautiful flowers scarcely less handsome than C. grandiflorus, measuring 12 to 14 inches across; the bright scarlet fruit, the size of a goose's egg, has a flavor compared to strawberries; the plant is easily distinguished by its triangular stems, and makes a most luxuriant growth, climbing readily to the top of its support.

CEREUS TUBEROSUS.

The small tuberous roots produce slender stems 1-4 feet high, covered with a delicate lacework of interlacing white spines. Flowers terminal, over 2 inches across, pale rose purple. A liniment can be made by steeping the tubers in alcohol, "said to be a 'sure cure' for rheumatism." C. Poselgerianus Coulter & probably C. Poselgeri Hort. are other names of this plant.

CEREUS VARIABILIS Pfeiffer.

Engelmann's variabilis is the plant commonly sold under this name—the older stems triangular, armed with sharp straight spines, & a night bloomer; true name is C. princeps Hort. True Pfeiffer's variabilis I have yet to see.

CEREUS VIRENS DC.

Pilocereus Houlletianum & tilophorus, &c.

CEREUS VIRIDIFLORUS Engelm.

§Echinocereus. "Lovely purple & white spines."

Genus ECHINOCACTUS Link & Otto.

E. ACANTHODES Lem.

This old name has recently been revived by Dr. Weber of Paris for the plant now familiar to us under the name of E. cylindraceus

E ARRIGENS Link.

Wavy ribs, straight leaf-like central spines, with dark lilac flowers. None on hand.

ECHINOCACTUS BICOLOR Gal.

Fls. 2-3 inches long, bright rose purple; plant 4-8 inches high, with spines of rainbow tints.

ECHINOCACTUS BREVIHAMATUS E.

Body bright green, spines white & brown, the lower spines strongly hooked, profuse flowering

ECHINOCACTUS CALIFORNICUS Mon.

E. viridescens has been cultivated in Europe it is said, but Dr. Weber has recently published a description of a plant from Lower California & claims it to be identical with Monville's plant.

E. CAPRICORNIS Dietr. Mexico.

Few deeply cut ribs spotted with white dots & entirely spineless but for a crown or tuft of interlacing spines; fls. satiny yellow with a deep red center; called an Astrophytum by some.

ECHINOCACTUS CHRYSACANTHUS O.

Originally sent out as a variety of Emoryi, it is globose to cylindrical, with about 18 ribs & 10 flexuous annulated central spines 2 inches long, & 4 to many slender white radial spines; satiny yellow to crimson fls.

ECHINOCACTUS COPTONOGONUS Lm.

A small growing bluish plant, with few broad upturned light colored spines lying close to the ribs, fls. striped with purple. m

ECHINOCACTUS CORNIGERUS DC.

Lizard cactus—broad sharply hooked reddish spines ¼ inch across.

Var. FLAVISPINA: yellowish spined; both var have rose purple fls. & are not very distinct.

ECHINOCACTUS CRISPATUS DC.

Mexico; 30-40 compressed ribs; fls. striped.

ECHINOCACTUS CYLINDRACEUS E.

Handsome, sometimes 10 feet high, fls. & spines yellow, but in young plants the color of the spines is variable—hence the following:—

Var. ALBISPINUS—with ivory white spines;

Var. BICOLOR—red & yellow spines;

Var. RUBRISPINUS—with red spines.

ECHINOCACTUS EMORYI Engelm.

ECHINOCACTUS ERECTOCENTRUS C.

"Mamillaria Childsi A grand new Cactus from the mountains of Arizona. It is quite hardy, being found at a latitude where snow and ice is plentiful. One of the loveliest plants known to cultivation. Growth short and globular, with numerous spines which have a peculiar and beautiful luminous blue color, making it at all times a lovely object and a fine companion to the Rainbow Cactus. Its flowers are freely borne large, white, tinted pink and with a deep pink bar through the center. 30c. each; 2 or 50c." John Lewis Childs, 1894. with figure.

Near E. intertextus—a well marked variety.

E. ORCUTTII Orcutt, Review Cactaceæ, i. 56

Globose, 6 inches or more in diameter, with about 18 tuberculated narrow ribs closely set with clusters of stout ashy gray spines, 4 central, annulated, the longest 1¼ inches long, and hooked; 2 slender spines above with about 14 divergent radials; flower an inch across, about 32 rose purple petals in 2 series, 9 greenish stigmata, style tinged with red, filaments red at top and yellow at base, anthers orange yellow. Near Lagoon head, Baja California, named for Lyman M. Ford, of San Diego, who has taken a great interest in these plants. Apparently the same plant was distributed in 1894 from near San Quintin bay as a form of E peninsulæ'

ECHINOCACTUS HORIZONTHALONIUS Lem

Glaucous, globular, 8 ribbed, with clusters of rigid gray spines: fls rose purple

ECHINOCACTUS INTERTEXTUS Em.

Var. DASYACANTHUS—egg shaped

ECHINOCACTUS JOHNSONII Engelm.

Johnson's hedghog cactus was named for J. E. Johnson, an early Mormon naturalist, who discovered it about S. George in southern Utah. It is a rare and handsome plant, 4 to 7 inches high, oval, 3 to 5 inches in diameter, densely covered with stout reddish-gray spines—turning deep red when wet. The flower is about 2¼ inches broad, of a rose purple normally, but some plants which opened their flowers while packed in a box away from the light leave light yellowish-green petals marked with deep maroon at base. Anthers pale primrose yellow; filaments ½ inch lond, the inner ones white, outer ones reddish. Growing in out-of-the-way desert places in Nevada, Arizona, and California, it costs much trouble to secure this beautiful species.

ECHINOCACTUS LECONTEI Engelm.

Typical form not in hand; the Californian var. (perhaps a form of cylindraceus) is the plant commonly sold under this name.

ECHINOCACTUS LIMITUS Engelm.

Form only of viridescens—not distinct.

ECHINOCACTUS LONGIHAMATUS Gal.

Heavily notched dark green ribs with very long hooked central spines; fls reddish.

E LOPHOTHELE Salm. Mexico.

Ribs broken into irregular tubercles bearing long central spines.

ECHINOCACTUS McDOWELLII Rebut.

A very beautiful Mammillaria-like species of Mexico, thickly set with long bright straw colored spines which completely hide the plant.

ECHINOCACTUS MULTICOSTATUS.

A remarkable species, small, with 90-120 narrow ribs None on hand.

ECHINOCACTUS ORCUTTII Engelm.

ECHINOCACTUS PAPYRACANTHUS E.

No living plant known in cultivation.

ECHINOCACTUS PENINSULAE Eng.

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